DOCUMENT RESUME

ED 253 808 CG 018 011

AUTHOR Campbell, Robert B.; Mack, Sharon E.
TITLE Integrating Computer-Based Career Development into Your Career Planning Program.
PUB DATE Apr 84
NOTE 18p.; Paper presented at the Annual Meeting of the American College Personnel Association (Baltimore, MD, April 8-11, 1984). For related document, see CG 017 984.
PUB TYPE Viewpoints (120) -- Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Career Guidance; Career Planning; College Students; Higher Education; Models; Program Descriptions; Program Evaluation
IDENTIFIERS *Computer Assisted Guidance; *DISCOVER System

ABSTRACT

This paper focuses on the real and theoretical usefulness of a computer-based career development system in a career planning program, based on a 2-year pilot program evaluating the DISCOVER system. The system overview discusses components and contents of DISCOVER, and describes the 11 modules which assist users in learning about their values, interests, and abilities. The section on marketing/utilization outlines how DISCOVER is marketed to students, staff, community members, and business and industry personnel. The full range of potential users of the system and its potential secondary benefits are illustrated. The final section, "Development of a Plan for Your Campus," uses a matrix developed by JoAnn Bowlsbey to show components of a career guidance program and how these can be delivered using alternative modes. An example of how a program might evaluate its delivery of a career guidance program is presented using matrices which show the process for assessing the best counselor functions and best computer functions, and the final selected mode of delivery. (JAC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED253808

INTEGRATING COMPUTER-BASED CAREER DEVELOPMENT INTO YOUR CAREER PLANNING PROGRAM

Robert B. Campbell
Sharon E. Mack
Pennsylvania State University/York Campus

CG 018011

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Robert B. Campbell
Sharon E. Mack

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Paper presented at the Annual Meeting of the American College Personnel Association, Baltimore, MD, April 8-11, 1984.

ABSTRACT

INTEGRATING COMPUTER-BASED CAREER DEVELOPMENT

INTO YOUR CAREER PLANNING PROGRAM

Interest in computer-based career development systems is spreading and questions have been raised about the usefulness of these systems in career planning and placement.

At a small campus of a major university, a two-year pilot program evaluating DISCOVER for the total university system was conducted. This paper focuses on the real and theoretical usefulness of a computer-based system in a career planning program. We include:

1) System overview: a discussion of the components and contents of DISCOVER.
2) Marketing/utilization: how we market DISCOVER to our students, campus personnel (from advisers to clerical staff), community members and agencies, business and industry personnel. Through these contacts we improve our recruiting efforts and placement prospects. The full range of potential users of the system and potential secondary benefits are illustrated.
3) Development of a plan for your campus: using a matrix developed by JoAnn Bowlsbey (used with permission) we show the components of a career guidance program and how these can be delivered using alternative modes (one-to-one, curriculum, computer); what are the "best counselor functions" and the "best computer functions"; how can a career planning office utilize its human resources as well as computer technology.

Integrating Computer-Based Career Development

Into Your Career Planning Program

Introduction

Interest in computer-based career development systems, such as DISCOVER and SIGI, is spreading rapidly and many questions have been raised about the actual usefulness of these types of systems in a career planning and placement office.

At a small campus of a major university, we have been part of a two-year pilot program evaluating DISCOVER for the total university system. This paper will focus on the real and theoretical usefulness of a computer-based career development system in a campus career planning program.

A DISCOVER Overview

DISCOVER is a computerized career development system designed for main frame, mini-, or micro-computer systems. The program has 11 modules that a user can work through to learn about their values, interests, and abilities in an organized way. As a user works through the 10 to 12 hour system, a list of potential occupations is developed based on the user's input. Upon completion of the self-assessment sections of DISCOVER, the user proceeds to evaluate his/her list of occupations and receive detailed answers to questions concerning each job listed. The final module allows the user to begin thinking about specific career plans, i.e., educational opportunities, military service alternatives, financial aid, etc.

The DISCOVER Components

DISCOVER is composed of 11 modules plus an Entry Module that introduces the user to the System.

00 ENTRY

The Entry Module introduces the user to the System, teaches him/her how to use the terminal, and explains special features; monitors use of DISCOVER, recording each entry and exit point. Each user completes an on-line survey of career development, which is scored; the results serve as the computer's guide in suggesting which modules of the System will be most appropriate.

1a CLARIFYING VALUES

Has a number of experiences which lead the user to think about what a value is, to analyze personal values, and to decide upon actions to implement those values. Emphasis is placed on a person's "use of time" as the ultimate expression of personal values.

1b VALUES AND OCCUPATIONS

Defines nine specific occupationally-related values, followed by a series of exercises to develop a good understanding of the nine values. The user rates the personal importance of these nine values and the computer searches its data file for occupations that provide the combination and weighting of the values assigned.

2a EFFECTIVE DECISION MAKING

Teaches a planful approach to decision making by presenting the steps of the decision-making process in example and flowchart form.

2b DECISION MAKING AND CAREERS

Teaches the "process" nature of decision making by means of a polygonal model based on Tiedeman's decision-making paradigm; identifying the critical decision points in the decision-making process through several case studies; makes use of a "career decision tree" as an organizing principle for understanding how decisions affect occupational choice.

3a ORGANIZATION OF THE OCCUPATIONAL WORLD

Presents the world of work by way of two organizing principles: the data-people-things-ideas division and the work environment classification system.

3b BROWSING OCCUPATIONS

Uses the work environment classification system presented in Module 3a as an organizational structure by which the user can browse the world of work; allows him/her to investigate each of the family clusters in the hexagon; select titles from the list and receive a one-display description of the occupation's work setting and work tasks.

4 REVIEWING INTERESTS AND STRENGTHS

An interest survey is administered "on-line." It's a self-report of the user's career-related interests. The data gives the user a focus for exploration in the world of work. The results of the instrument are interpreted to the user "on-line."

5 MAKING A LIST OF OCCUPATIONS TO EXPLORE

Provides five alternate ways to make a list of personal vocational options: a) by relationship of occupations to personal work values, b) by use of the results of the interest survey, c) by selecting titles from a list of occupations by the terminal, d) by combining selected occupational characteristics (such as salary level, place of work, level of training, degree of independence, etc.) and/or 3) by relating favorite college subjects to occupations.

6 GETTING INFORMATION ABOUT OCCUPATIONS

Allows the user to get extensive information about the occupations on his/her list. May receive information about an occupation, its duties, benefits and limitations, educational requirements, future outlook, and additional sources of information.

7 NARROWING A LIST OF OCCUPATIONS

The purpose of this module is to assist the user to narrow the list of occupations so that he/she leaves the module with a first-choice occupation in mind and a limited number of others in priority order. This narrowing is assisted by the capability to: 1) ask for additional information about any occupations on the list, 2) compare information about two occupations, and 3) analyze the remaining occupations in light of identified work values, desired level of training, and interests and competencies. The user leaves the module with a top-priority selection.

8 EXPLORING SPECIFIC CAREER PLANS

The user enters this module with one specific occupation in mind at a time. The System identifies for the user all of the possible paths of training to the selected occupation. The user may choose the path of entry which he/she wishes to explore in depth and branch to any of the following sub-modules of the System:

a - Local jobs
b - Financial aid
c - Apprenticeships
d - 4-year college information and search
e - Community and Junior colleges

f - Graduate and professional schools
g - Technical and specialized schools
h - Continuing education
i - Military information and search
j - Mid-career job change

Marketing and Utilization Efforts

Prior to getting DISCOVER on campus, staff members brainstormed utilization ideas. For the PS/York Campus, the following ideas were implemented:

Internal

A. Resident Instruction students:

1. Advertising program - DISCOVER IS COMING, LOGO.
   Posters - bulletin boards, carousels
   "Pennstatement" - campus newspaper
2. News articles (Spring, Fall) - "Pennstatement" - in depth
3. Career Exploration Workshop (Fall, Spring)
   a. send notices to students who have indicated a need for career planning assistance; for those who don't sign up for the workshop, send them a separate note about DISCOVER.
   b. Utilize DISCOVER in the career information component of the workshop, and have each participant interact with DISCOVER during or after the workshop.
4. Develop a new Career Development brochure including DISCOVER, Career Information Center materials, Career Exploration Workshop, availability of individual career counseling, placement activities. (Spring, Summer)

5. For a short period of time (Spring, Fall) have DISCOVER terminal in the hall outside Career Information Center to attract attention. It must be monitored.
6. Train Career Information Center work study students to help others access DISCOVER, and give general orientation to the Center. (Spring, Fall)
7. Hold Orientation Sessions for faculty/advisers, in the Career Information Center, getting them on-line and interacting with DISCOVER. Possible help from Student Affairs Committee of Faculty Senate. (Spring, Fall)
8. Use DISCOVER as a focus of the Fall Semester Advising Workshop. (Fall)
9. Hold a separate staff orientation session for admissions, audio lab, and library clerical personnel, to demonstrate capabilities. (Spring)
10. Encourage advisers of undecided students to use DISCOVER with individual advisees. Hold specific training sessions for these advisers. (Spring)
11. Encourage admissions personnel to refer students who are undecided - especially Provisional - to DISCOVER. Include in Campus tour. (Spring)
12. Work with student leaders and club presidents on DISCOVER capabilities. Have an orientation session for these students. (Fall)
13. Make DISCOVER a part of the Freshman Testing, Counseling and Advising Program. (Summer)

- everyone see it on the tour; several students go on-line
- show parents its capabilities
- encourage individual utilization on FTCAP day, or anytime in summer.

B. Continuing Education students:

1. Career Exploration Workshop - encourage, individual usage - daytime if possible. (Spring, Fall)
2. Handouts to students at registration - (Summer, Fall, Spring)
3. Staff orientation for CE personnel - (Spring)
   - Explore possible industry/business utIlization of DISCOVER - personnel/training departments. (Next Year)
   - Use frame-building capability to plug in CE non-credit course work. (Next Year)

External

A. High School Students

1. Spring mailing to individual counselors encouraging them to visit over summer for individual demonstration of DISCOVER - one on one.
2. Encourage individual student referral to us through counselor at anytime.
3. DISCOVER as focus of Counselors Day. (Fall)
4. York County Counselors Association meeting re: DISCOVER. (Fall)

B. Community Organizations

1. Mailing to community organizations dealing with youth (Crispus Attucks, Spanish Center, YMCA, YWCA, Council of Churches, Boy Scouts, Explorers, Girl Scouts, etc.) re: individual availability of DISCOVER. (Next Year)

As a result of our brainstorming session, DISCOVER received extensive use immediately upon arriving on campus. Our external efforts succeeded in bringing high school students and counselors to the campus which aided in our Penn State recruiting goals. Contacts with local business and industry promoted public relations between campus and community as well as increasing placement possibilities for our Associate Degree graduates.

dka
1/30/85
(16.53)

Developing a Plan to Use Computer-Based Career Development on Your Campus

Some career development professionals are concerned about the stability of their jobs if a computer comes to "compete" with them; others expect to plug in the machine and relax, letting it do the work with students.

Neither scenario is an accurate characterization of how a computer-based system should be used in a campus environment.

A system like DISCOVER can do some things well, probably better than a counselor, and counselors can do some things better than a computer-based system. The optimum use of any computer-based career development system is determined by assessing, for a particular career services office, what tasks the counselor(s) can best perform, and then what place the computer system will have.

Using a matrix developed by Jo-Ann Bowlsbey (and used with her permission) one can evaluate the components of a career guidance program and the possible modes of delivery of these components. The components of a career guidance program would typically include the following:

1. READINESS - a process to determine whether an individual is at a point of career maturity to benefit from a career guidance program.

2. SELF-INFORMATION - assessment of an individual's skills, abilities, interests, and values.

3. LINKAGE (SELF-INFORMATION TO OCCUPATIONS) - capability to show individuals which occupational alternatives relate to their particular interests, skills, or values. Emphasis on developing new alternatives for consideration.

4. OCCUPATIONAL INFORMATION - provision of relevant and accurate data about the alternative occupations developed in 3.

5. NARROWING AND REALITY TESTING - a process to help students systematically reduce the options developed in 3 to a small number that can be explored in some depth.

6. IMPLEMENTATION - following a tentative choice, the student needs to know how to gain entry to the chosen occupation.

Additionally, guidance services can be delivered in several ways:

- ONE TO ONE - an individual meeting with a professional or paraprofessional.
- COMPUTER - using a system such as GIS, DISCOVER, or SIGI.
- CURRICULUM - teaching-oriented group instruction through credit or non-credit courses or workshops.
- GROUP GUIDANCE - usually small, process oriented group, revolving around individual participation more than teaching specific content.
- PRINTED SELF-HELP MATERIALS - wide array of possibilities such as Occupational Outlook Handbook, "Parachute", Dictionary of Holland Occupational Codes, Holland's Self-Directed Search, etc.

Using the following matrix, (Matrix 1), an individual campus or office can evaluate which "MODES OF DELIVERY" are most appropriate for the several "COMPONENTS" of the planned career guidance program.

MATRIX 1

PREFERRED MODES OF DELIVERY

COMPONENTS	ONE-TO-ONE	COMPUTER	CURRICULUM	GROUP GUIDANCE	PRINTED SELF-HELP
1. READINESS					
2. SELF-INFORMATION					
3. LINKAGE (SELF-INFO TO OCCUPATIONS)					
4. OCCUPATIONAL INFORMATION					
5. NARROWING AND REALITY TESTING					
6. IMPLEMENTATION PLANS					

To explore the process, we'll look at an example of how one career planning office might evaluate its capabilities for delivery of a career guidance program (Matrix 2), and follow the example through to a conclusion.

In this example, the asterisks indicate that this office feels it might assess a student's READINESS using either ONE-TO-ONE or GROUP GUIDANCE MODES, based on the counselors best capabilities in that office. Providing SELF-INFORMATION can be accomplished using ONE-TO-ONE contact, their COMPUTER system, or a GROUP GUIDANCE program.

The counselors in this career planning office feel that they have the tools to make the LINKAGE between self-information and potential careers using either their COMPUTER system or PRINTED SELF-HELP materials, such as the Dictionary of Holland Occupational Codes. OCCUPATIONAL INFORMATION can be provided by the COMPUTER system or the PRINTED SELF-HELP materials in their career library. Helping their

students with NARROWING of their career options and REALITY TESTING is potentially done in this example by ONE-TO-ONE guidance or GROUP GUIDANCE, in the judgement of these counselors. Helping students evaluate IMPLEMENTATION of their career plans can be accomplished through several modes in this particular career planning office, as indicated by Matrix 2. The counselors can see students ONE-TO-ONE, and the COMPUTER system has good material on implementation. Additionally, several counselors feel competent to provide job search skills through a GROUP GUIDANCE format, and much PRINTED SELF-HELP material is available in the office's career library on the resume, interview skills, and evaluating job offers.

MATRIX 2

ONE CAREER PLANNING OFFICE'S EVALUATION OF THEIR PREFERRED MODES OF DELIVERY

	PREFERRED MODES OF DELIVERY				
COMPONENTS	ONE-TO-ONE	COMPUTER	CURRICULUM	GROUP GUIDANCE	PRINTED SELF-HELP
1. READINESS	*			*	
2. SELF-INFORMATION	*	*		*	
3. LINKAGE (SELF-INFO TO OCCUPATIONS)		*			*
4. OCCUPATIONAL INFORMATION		*			*
5. NARROWING AND REALITY TESTING	*			*	
6. IMPLEMENTATION PLANS	*	*		*	*

The key to the process indicated by Matrix 2, is to assess "best counselor function" and "best computer function." To determine "best counselor function," each career planning office needs to look at its own staffing pattern, the

resources available (printed materials, computer system), and the expertise of the professionals in the office, developing the "preferred modes of delivery" in their particular setting.

"Best computer functions" are generally dependent on whether the computer-based system is an information system such as GIS, or a guidance system like DISCOVER or SIGI.

Best Computer Functions:

Information Systems - GIS

- search files
- identify options
- provide detailed information about options

Guidance Systems - DISCOVER, SIGI

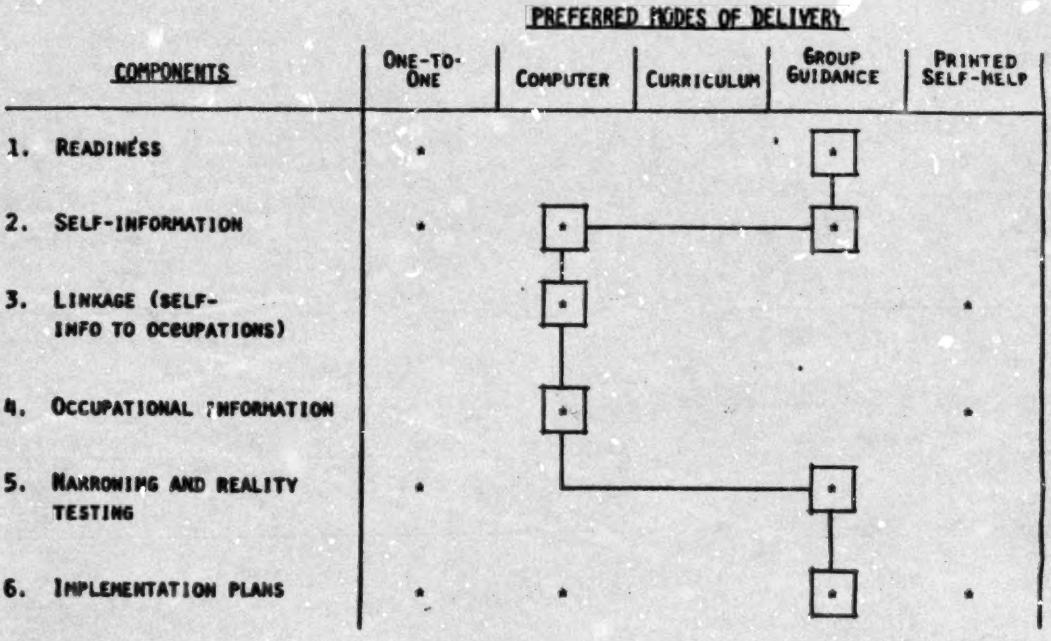
- all of the above
- self-information-values, interests, abilities
- decision-making process

Information systems may be useful primarily in the LINKAGE and OCCUPATIONAL INFORMATION components of a career guidance program. Guidance systems may be applied to the SELF-INFORMATION component, to parts of the READINESS component, and depending on the particular system, to the NARROWING and IMPLEMENTATION components, as well as LINKAGE and OCCUPATIONAL INFORMATION.

The final step in development of a career guidance program will involve making decisions about which specific MODES OF DELIVERY will be used for each COMPONENT by a particular career planning staff. Following the process for our example used previously, Matrix 3 indicates the decision made by the career planning office to implement a career guidance program.

MATRIX 3

ONE CAREER PLANNING OFFICE'S SELECTED MODES OF DELIVERY



They've chosen to combine a small GROUP GUIDANCE format with their COMPUTER-based career development system. In the small group session, they will discuss career maturity and the career planning process, then introduce the concept of self-information. They will use the computer to help each student in the group with self-assessment, then process this in more depth in the group. They will have students use the computer to develop new career alternatives, the linkage step, and to provide information about these alternatives. Coming back to the small group, students will discuss ways to logically evaluate their career options and provide a reality testing experience using an information interviewing technique. The group will also be the mode of delivery for the segment of implementing career plans.

In summary, it is important to look closely at the best ways to use a computer-based career development system in your own environment. These systems

were not designed to "stand alone." Some students, in some situations, can benefit from using a computer system by itself, but in most cases, if a career guidance program is to be developed, the computer should not be the program.

RBC/dka
1/23/85
(15.75)